



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/816,093	04/01/2004	Derek Wyatt	3084.EEM	9478

7590

05/23/2006

JANE E. GENNARO
National Starch and Chemical
10 Finderne Avenue
Bridgewater, NJ 08807

EXAMINER

BRUENJES, CHRISTOPHER P

ART UNIT	PAPER NUMBER
----------	--------------

1772

DATE MAILED: 05/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/816,093

Applicant(s)

WYATT, DEREK

Examiner

Christopher P. Bruenjes

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) 8 and 9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

Art Unit: 1772

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I, claims 1-7, in the reply filed on April 11, 2006 is acknowledged.

2. Claims 8-9 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on April 11, 2006.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Van Dyke et al (USPN 5,326,603).

Regarding claims 1 and 5, Van Dyke et al anticipate a method comprising storing adhesive in a container (col.6, 1.49-

Art Unit: 1772

51). The walls of the container are a thermoplastic material and have a thickness of about 0.008 inches to 0.025 inches, which is within the claimed range. The limitation "for reducing the level of freeze-thaw voids in an uncured adhesive subjected to freezing and thawing" is a preamble statement reciting the purpose of the method or the intended use of the method. Such statements in the preamble are given little patentable weight when the statement provides no manipulative difference between the claimed invention and the prior art. See MPEP 2111.02. The method of Van Dyke et al meets the manipulative steps claimed and since it meets those steps it would be capable of being used in the same manner as the claimed invention since it performs the same steps, the method of Van Dyke et al anticipates the claimed method. Regarding claims 2 and 3, the thermoplastic material is selected from polypropylene and high density polyethylene (col.2, 1.45-47), which are injection moldable and have a flexural modulus of less than or equal to 1240MPa. Regarding claim 4, the container of Van Dyke et al is an applicator such as a syringe. Merely stating that an article in the method is a syringe does not provide any patentable manipulative difference from the method of storing adhesive using an applicator in Van Dyke et al.

Art Unit: 1772

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Dyke et al (USPN 5,326,603) in view of Bergner et al (USPN 5,827,456).

Regarding claims 1 and 6, Van Dyke et al teach a method comprising storing adhesive in a container (col.6, 1.49-51). The walls of the container are a thermoplastic material and have a thickness of about 0.008 inches to 0.025 inches, which is

Art Unit: 1772

within the claimed range. The limitation "for reducing the level of freeze-thaw voids in an uncured adhesive subjected to freezing and thawing" is a preamble statement reciting the purpose of the method or the intended use of the method. Such statements in the preamble are given little patentable weight when the statement provides no manipulative difference between the claimed invention and the prior art. See MPEP 2111.02.

Van Dyke et al fail to teach that the wall of the container has a mean roughness value of greater than 0.3 micrometer. However, Bergner et al teach that very thin-walled plastic containers having a wall thickness of 0.1mm to 0.3mm, which is the thickness range for the container used in Van Dyke et al, have low strength and stability (col.1, 1.15-35). Bergner et al teach that in order to provide the thin-walled container with increased strength and stability while maintaining a uniform wall thickness, the wall is roughened to depths of 0.05 to 0.15mm (col.2, 1.1-10), which is greater than a mean roughness of greater than 0.3 micrometers claimed. Therefore, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made that thin-walled containers have diminished strength and stability and that in order to increase the strength and stability while maintaining a uniform

Art Unit: 1772

wall thickness, the wall is roughened to a roughness value greater than 0.3 micrometers, as taught by Bergner et al.

Thus, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to roughen the wall of the container of Van Dyke et al to a roughness value greater than 0.3 micrometers in order to provide the container with improved strength and stability, as taught by Bergner et al.

Regarding claims 2 and 3, the thermoplastic material is selected from polypropylene and high density polyethylene (col.2, 1.45-47), which are injection moldable and have a flexural modulus of less than or equal to 1240MPa.

Regarding claim 4, the container of Van Dyke et al is an applicator such as a syringe. Merely stating that an article in the method is a syringe does not provide any patentable manipulative difference from the method of storing adhesive using an applicator in Van Dyke et al.

Regarding claim 7, Bergner et al teach that the walls are roughened by adding contours to the interior walls during fabrication, mechanical abrasion, or etching (col.2, 1.3-10).

8. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Batson (USPN 5,016,784).

Art Unit: 1772

Regarding claims 1 and 4-5, Batson teaches a method comprising storing an adhesive in a syringe (col.1, 1.6-12 and col.1, 1.53-60). The walls of the syringe are a thermoplastic material (col.2, 1.51-55). The limitation "for reducing the level of freeze-thaw voids in an uncured adhesive subjected to freezing and thawing" is a preamble statement reciting the purpose of the method or the intended use of the method. Such statements in the preamble are given little patentable weight when the statement provides no manipulative difference between the claimed invention and the prior art. See MPEP 2111.02. Batson teaches an example of the thickness of the wall of the syringe with a value of 1.5mm (col.5, 1.3-6), but fails to explicitly teach the wall thickness between 0.0254mm and 0.762mm. However, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made that when forming a syringe the wall thickness would be optimized based on the need to fulfill its requirements of storing the adhesive and the need to limit the cost of the syringe by limiting the amount of raw materials used to form the syringe.

Therefore, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to select the thickness of the wall of the syringe within

Art Unit: 1772

the claimed range after routine experimentation in order to find the optimal amount of wall material to fulfill the desired end result of the syringe while using the least amount of plastic material for the purpose of holding down the expensive.

Regarding claims 2-3, the thermoplastic material is selected from polypropylene and high density polyethylene (col.2, 1.51-55), which are injection moldable and have a flexural modulus of less than or equal to 1240MPa.

9. Claims 1-4 and 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Batson (USPN 5,016,784) in view of Okamoto et al (JP 08-057051 A). Note a machine translation is provided for the Japanese reference and is cited in this rejection.

Regarding claims 1, 4, and 6, Batson teaches a method comprising storing an adhesive in a syringe (col.1, 1.6-12 and col.1, 1.53-60). The walls of the syringe are a thermoplastic material (col.2, 1.51-55). The limitation "for reducing the level of freeze-thaw voids in an uncured adhesive subjected to freezing and thawing" is a preamble statement reciting the purpose of the method or the intended use of the method. Such statements in the preamble are given little patentable weight when the statement provides no manipulative difference between

Art Unit: 1772

the claimed invention and the prior art. See MPEP 2111.02.

Batson teaches an example of the thickness of the wall of the syringe with a value of 1.5mm (col.5, 1.3-6).

Batson fails to teach that the wall is roughened to have a mean roughness value of greater than 0.3 micrometers. However, Okamoto et al teach that the inner surface of the wall of a syringe is roughened in order to decrease the sliding friction between the gasket of the plunger and the syringe outer wall so that the material within the syringe can more easily be dispensed from the syringe (p.1, paragraph 3 and 4 and p.2, paragraph 15 of machine translation). Okamoto et al teach that the optimal mean roughness value of the inner surface of the syringe is 0.5 to 5 micrometers (p.2, paragraph 15 of machine translation), which is greater than 0.3 micrometers. Okamoto et al further teach that the roughness is formed by mechanical abrasion such as sandpaper processing (p.3, paragraph 18 of machine translation). Therefore, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to roughen the inner surface of the wall of a syringe in order to decrease the sliding friction between the gasket of the plunger and the syringe wall, which will enable the composition held in the syringe to be more easily dispensed, as taught by Okamoto et al.

Art Unit: 1772

Thus, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to roughen the inner surface of the syringe of Batson by mechanical abrasion or sandpaper processing to have a mean roughness value greater than 0.3 micrometers, in order to improve the dispensability of the adhesive stored in the syringe by decreasing the sliding friction between the gasket of the plunger and the syringe wall, as taught by Okamoto et al.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Takahashi (USPN 5,743,401); Blom et al (USPN 6,558,764); D'Alessio et al (US 2003/0015557 A1).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher P. Bruenjes whose telephone number is 571-272-1489. The examiner can normally be reached on Monday thru Friday from 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 571-272-1498. The fax phone number for the

Art Unit: 1772


organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Christopher P Bruenjes
Examiner
Art Unit 1772

CPB

May 19, 2006


HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772

5/19/06